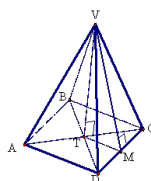


9.3 and 9.5

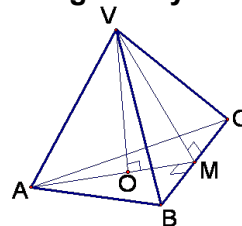
Area and Volume of Pyramids

The **base** of a pyramid is a polygon.The **lateral faces** are triangles

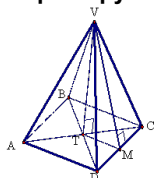
Square pyramid



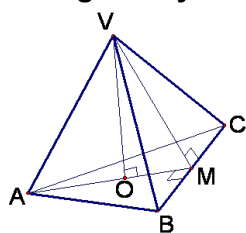
Triangular Pyramid



Square pyramid

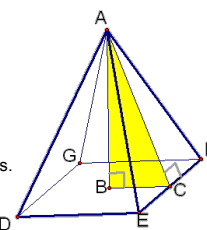


Triangular Pyramid

The **height** of the pyramid is the perpendicular distance between the vertex and the base.The **slant height** of the pyramid, represented by the letter l , is the height of one of the lateral faces (triangles). (Isosceles on a regular pyramid.)The **lateral edges** connect the main vertex and the vertices of the base.

Please answer the following questions:

1. Square What shape is the base?
2. AB, AE, AF, AE Name the lateral edges.
3. AB Name the height (altitude).
4. Triangle What shape are the lateral faces?
5. $\triangle ADE, \triangle AGE, \triangle AFE, \triangle AGD$ Name all 4 lateral faces.
6. AE Name the slant height.
7. GF, DE, CD, EF Name the base edges.
8. Right \triangle What kind of triangle is $\triangle ABC$?
9. DE = 2 x BC
10. Fill in the Pythagorean Theorem for $\triangle ABC$. $AC^2 = \underline{BC^2} + \underline{AB^2}$



$$LA = \frac{1}{2} p l$$

$$SA = LA + B$$

$$V = \frac{1}{3} Bh$$

Example 1:

$h = 12\text{cm}$

$l = 13\text{cm}$

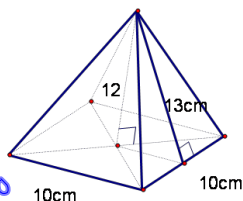
$p = 40\text{cm}$

$B = 100\text{cm}^2$

$LA = 260\text{cm}^2$

$SA = 360\text{cm}^2$

$V = 400\text{cm}^3$

 $\frac{1}{2} p l$ - slant height

Example 2:

$h = 2\text{cm}$

$l = 2.5\text{cm}$

$p = 12\text{cm}$

$B = 9\text{cm}^2$

$LA = 15\text{cm}^2$

$SA = 24\text{cm}^2$

$V = 6\text{cm}^3$

